

REMARKS

The Examiner has rejected claims 10-20 and 25-30 under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US Patent Number 5,605,880, hereinafter referred to as D1) in combination with LeSuer (US Patent Number 3,197,405, hereinafter referred to as D2).

The Examiner contends that when D1 and D2 are combined they teach Applicants invention because D1 comprises a lubricating base oil, an alkyl diphenylamine or a phenyl- α -naphthyl amine antioxidant and a molybdenum compound selected from oxymolybdenum sulphide dithiocarbamate and oxymolybdenum sulphide organophosphorodithioate preferably present at 100-1000 ppm by weight of molybdenum. D1 may further contain other additives including a metal salt of thiophosphoric acid, phosphoric esters and esters of phosphorous acid. The Examiner further contends that D2 teaches several antiwear agents such as phosphorus- and nitrogen-containing additives for lubricating oil compositions. Applicants respectfully traverse.

Document D1 teaches a lubricating base oil, an amine antioxidant and a molybdenum compound preferably present at 100-1000 ppm by weight of molybdenum that includes a oxymolybdenum sulphide dithiocarbamates. The composition may also contain metal salt of thiophosphoric acid, phosphoric esters and esters of phosphorous acid (column 45, lines 41-46). D1 does not teach, suggest, or disclose in column 45, lines 41-46 or in any example (see column 6, line 10 to column 7, line 32) to a person of ordinary skill in the art a phosphoric acid ester or salts thereof reacted with ammonia or an amine as is claimed by Applicants. In contrast Applicants require a phosphoric acid ester or salts thereof reacted with ammonia or an amine.

Document D2 teaches a lubricating composition comprising phosphorus- and nitrogen-containing antiwear additives. Further, column 11, line 26 to column 12, line 44 states other additives that can be used in conjunction with the phosphorus- and nitrogen-containing antiwear additives. However, D2 does not teach, suggest, or disclose to a person skilled in the art to combine the phosphorus- and nitrogen-containing antiwear additive with a molybdenum dithiocarbamate or thiophosphate as claimed by Applicants.

With regard to combining D1 and D2 a person skilled in the art would not combine these documents because D1 relates to an engine oil composition and D2 relates to a gear oil composition. The two distinctly different oil technologies use a phosphorus additive requirements differently. In an engine oil composition, phosphorus chemistry is based on metal salts of thiophosphoric acid (chemistry disclosed in D1, column 5, line 41-42) and this class of compounds are well known to impart antiwear, extreme pressure and antioxidant properties into a lubricating composition for an engine. For a gear oil composition D2 discloses phosphorus- and nitrogen-containing antiwear additives that improve thermal stability, load carrying properties and rust inhibiting properties (see column 13, line 39 to column 14, line 66). Accordingly the different uses of the phosphorus compound would not provide to a person skilled in the art the motivation of combining the phosphorus- and nitrogen-containing compound as claimed by Applicants with the molybdenum compound as claimed by Applicants.

The Examiner has also rejected claims 10, 15, 19, 20 and 25-30 under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (US Patent Number 5,672,572, hereinafter referred to as D3).

The Examiner contends that D3 teaches a lubricating oil composition with a total base number of 2 to 13 which comprises zinc dialkyldithiophosphate, a calcium sulfonate or salicylate detergent and 50 to 2,000 ppm of molybdenum from a sulfurized oxymolybdenum dithiocarbamate. Applicants respectfully traverse

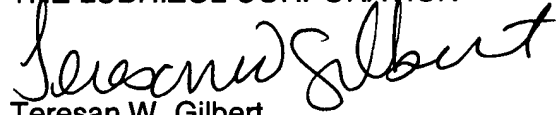
In view of the amendment to independent claim 25 limiting the phosphorus antiwear or extreme pressure to a phosphoric acid ester or salt thereof reacted with ammonia or an amine this rejection is obviated. The support for this amendment is found in the specification on page 26 lines 21-22 and original claim 13. Accordingly this rejection should be withdrawn.

For the reason set forth above, Applicants believe the present invention is novel as well as not obvious over the references used alone or in combination. Applicants respectfully request the Examiner to remove the 35 USC 103(a) rejection and find all claims allowable.

Applicants believe that no fee is required for the filing of this document. However, if any fees are due, the Commissioner is authorised to charge such fee to our Deposit Account No. 12-2275. A duplicate copy of this document is submitted for such purposes.

Respectfully submitted,

THE LUBRIZOL CORPORATION

A handwritten signature in black ink, appearing to read "Teresan W. Gilbert", written over the printed name.

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